

I am an Amateur Radio Extra Class licensee, AF6G. The following reply comments will focus on the comments of the American Radio Relay League (ARRL). As the commission is no doubt aware, the electric power distribution system was designed to transfer electrical power at a frequency of sixty cycles per second. It was not designed to convey high speed digital information at the proposed frequencies involved with BPL. One can point out that the public switched telephone network was not designed to transmit data, despite it's utilization by many consumers for their internet connection. While this is true, the Commission has rules in place to limit the speed of such transmissions, for obvious reasons. The ARRL's comments (paragraph 6) point out that the Commission denied a low frequency allocation to the Amateur Service (ET Docket No. 02-98) based on the conclusion that a 1 watt signal could cause interference with a PLC system at less than 950 meters distance from antenna to line. Using an average, simple, neighborhood power distribution system, the ARRL concluded that such a system makes a effective radiator and receiver of RF energy at high frequencies, including possible BPL frequencies (ARRL comments attachment: "Power lines as antennas" paragraph 4). Given the numerous diversity of distribution systems accross the United States, no one single model can possibly represent the exact amount and pattern of RF energy radiated or received on any given distribution system. Add to this the various frequencies that can be utilized by BPL and the modeling becomes extremely difficult at best. The ARRL comments (paragraph 3) state that there have been 245 complaints of transmission line noise (from conventional utilization) forwarded to them from individual Amateurs who have been unable to obtain cooperation from the utility companies. This is at frequencies that are much lower than the BPL frequencies where it appears that power lines will receive and radiate RF energy with an efficency rivaling that of common Amateur antennas. If BPL interference is factored into the current power line noise problems (given expedited deployment of BPL) correction of resultant interference problems will be of a complexity I do not think the utilities are anywhere near ready to deal with or perhaps are even aware of. In conclusion, I strongly urge the Commission to proceed slowly and cautiously, if at all, with BPL. The communications infrastructure is not where we should be modeling, testing and debugging BPL interference by the expedited deployment of BPL in the field. Numerous engineering studies must be conducted, not just by the ARRL but by as many industry groups as possible, including the electrical power distribution industry, to arrive at specifications for necessary pre-deployment modifications to the power distribution system, as well as specific frequency allocations for BPL, to eliminate interference to the current communications infrastructure, if, in fact, such a result can be acheived.

Thank you for your time and attention.